

MASLOV, V.Ye., kand.tekhn.nauk; SAL'KOV, P.G., kand.tekhn.nauk; PROTSAYLO, M.Ya., inzh.; SMORGUNOV, M.P., inzh.; KROTOV, V.I., inzh.; OSTROMOV, A.M., inzh.; SHESTAKOV, V.M., inzh.

Experience in burning brown coals in wet-bottom furnaces with shaft-type impact mills. Teploenergetika 10 no.2:15-19 F '63. (MIRA 16:2)

1. Vostochnyy filial Vsesoyuznogo teplotekhnicheskogo instituta, Chelyabinsk, Krasnoyarskenergo i Vsesoyuznyy nauchno-issledovatel'skiy teplotekhnicheskoy institut.

(Boilers)

(Furnaces)

(Lignite)

CHADAYEV, V.M. [Chadaye, V.M.]

Calculating the necessary rotation number of die-casting molds
in manufacturing large polyamide sliding bearings with lead
conducting metal fillers. Vestsi A. BSSR. Ser. fiz.-tekhn. nav.
no.4:96-99 164. (MIRA 18:3)

L 52320-65 EEG(b)-2/EWA(h)/EWT(1) Pg-4/Pl-4/Pm-4/Po-4/Pq-4/Pe-4

ACCESSION NR: AP5009107

S/0250/65/009/002/0115/0117

AUTHOR: Treyer, V. N.; Skorynin, Yu. V.; Shestakov, V. M.

41
40
8

TITLE: Predicting the ²⁵reliability of elements in machines and instruments according to the variation of their reliability indices under different operating conditions

SOURCE: AN BSSR. Doklady, v. 9, no. 2, 1965, 115-117

TOPIC TAGS: reliability prediction, test facility, instrumentation

ABSTRACT: The authors present a general method for predicting the reliability of any of a lot of identical elements for different periods under different load factors. The life expectancy of any element under different loads can also be predicted. The method is based on the use of a series of equations by which reliability expectations derived from measurements can be extrapolated for different periods of operation and load factors. The basic relationship underlying the method is $\Delta K_I = b_{01} t^{k_{01}}$ where ΔK_{I1} is the mathematical expectation of deviation of the reliability of all elements of the lot being tested at time t_1 from the initial mathematical expectation of reliability, and b and k are parameters. The method is particularly applicable to investigation of a number of wearing elements of machines

Card 1/2

L 52320-65

ACCESSION NR: AP5009107

and instruments. Orig. art. has: 7 formulae, 1 figure.

ASSOCIATION: Institut mashinovedeniya i avtomatizatsii Goskomiteta po mashino-
stroyeniyu pri Gosplane SSSR (Institute of the Science of Machines and Automation,
State Committee on Machine Building, Gosplan SSSR)

SUBMITTED: 17Oct64

ENCL: 00

SUB CODE: DF

NO REF SOV: 002

OTHER: 000

Card 2/2 *mb*

Doc. 1.1.; Pribl. 1.1.; Dokl. 1.1.

Abstract to a report on the results of measuring small angles.
Izv. lab. 31 no.8:1001-1002 '65. (MIA 18:4)

1. Institut mashinovedeniya i avtomatizatsii.

См.: *История науки и техники*.

regulating the number of revolutions of die-casting molds
used for making large polyamide sliding bearings. Vest.
Zhuravsk. 45 no.6:37-39 Je '65. (MIRA 18:6)

SHESTAKOV, V.N.

USSR/Mathematics

Card 1/1 : Pub. 22 - 8/49

Authors : Shestakov, V. N.

Title : On the transformation of a monocyclic sequence into a recursive one

Periodical : Dok. AN SSSR 98/4, 541-544, Oct. 1, 1954

Abstract : A method for the transformation of monocyclic sequences into recursive ones is described. Definitions of monocyclic, fundamental and recursive sequences are given. Two references (1949 and 1954).

Institution : ...

Presented by : Academician S. L. Sobolev, August 19, 1954

SHRESTAKOV, V. N.

SHRESTAKOV, V. N. -- "The Effect of Coupling of Bogies on the Horizontal Dynamics of an Electric Locomotive." Min Railways USSR. All-Union Sci Res Inst of Railroad Transport. Moscow, 1955. (Dissertation for the Degree of Candidate in Technical Sciences).

So.: Khizhnaya L topis', No. 2, 1956.

SHRESTAKOV, V.N., kandidat tekhnicheskikh nauk.

Significance of coupling cars during movement of an
electric locomotive on a curve. Vest. TSNII MPS 15 no.4:
16-21 D '56. (MLRA 10:2)

(Railroads--Curves and turnouts)

512 117 12 1974
ANDRIYEVSKIY, S.M., kandidat tekhnicheskikh nauk; SHESTAKOV, V. N., kandidat
tekhnicheskikh nauk.

Lateral wear of rails on curves. Vest.TSNII MPS no.1:22-29 F '57.
(MLRA 10:3)

(Railroads--Rails)

SHESTAKOV, V.N., kand.tekhn.nauk

Determining lateral pressures on curved track sections of electric and diesel locomotives with back stroke equipment. Vest.
TSNIJ MPS 18 no.4:38-43 Ja '59. (MIRA 12:10)
(Locomotives--Dynamics) (Railroads--Curves and turnouts)

ZOL'NIKOV, S.S., kand.tekhn.nauk; POPOV, A.V., kand.tekhn.nauk; SHESTAKOV,
V.N., kand.tekhn.nauk

Dynamic testing of series F and ChS2 electric locomotives.

Vest.TSNII MPS 19 no.6:21-26 '60.

(MIRA 13:9)

(Electric locomotives--Testing)

SHESTAKOV, V.N., kand.tekhn.nauk; KUSHNARENKO, Ye.M., kand.tekhn.nauk

Performance of axle box drivers with rubber-metal hinges. Vest.
TSNII MPS 20 no.3:42-46 '61. (MIRA 14:5)
(Damping (Mechanics))

DOMETTI, A.A.; ZIMINA, A.M.; KALININ, F.P.; LAKTIONOVA, P.I.; MOROSHKINA, C.I.;
MYASISHCHEVA, Ye.I.; NECHAYEVA, Yu.A.; PREOBRAZHENSKIY, A.I.; RUSH,
V.A.; RYNDIN, A.A.; SAUCHKIN, Yu.G.; STROYEV, K.F.; TEREKHOV, P.G.;
[deceased]; FREYKIN, Z.G.; SHESTALOV, V.N.

Nikolai Nikolaevich Baranskii's 80th birthday. Geog. v shkole 24
no.4:7-8 J1-Ag '61. (MIRA 14:8)
(Baranskii, Nikolai Nikolaevich, 1881)

SHESTAKOV, V.N., inzh.

Chain conveyor for sorting textile fabrics. Mekh. i avtom.
proizv. 17 no.8:42-43 Ag '63. (MIRA 16:10)

L 22731-66 EWT(d)/EWP(h)/EWP(1)

ACC NR: AP6002902

SOURCE CODE: UR/0286/65/000/024/0066/0066

AUTHORS: Pangayev, V. A.; Stepanov, V. A.; Shestakov, V. S.

ORG: none

TITLE: Self-powered boom crane with pile-driver attachment. Class 35, No. 177057 /announced by Novosibirsk Branch of the All-Union Scientific Research Institute for Transportation Construction (Novosibirskiy filial vsesoyuznogo nauchno-issledovatel'skogo instituta po transportnomu stroitel'stvu)

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 24, 1965, 66

TOPIC TAGS: crane, loading equipment, pile driver, transporting equipment

ABSTRACT: This Author Certificate presents a self-powered boom crane with pile-driver attachment, including a pile-driver boom with guideways hinged to the crane boom and a brace. The ends of the brace are attached to both booms. To decrease the time required to convert the crane to operating or transporting positions and to permit its use without dismounting the pile-driver boom, the latter is assembled from hinged parts operated by a drive mounted on the crane boom (see Fig. 1). The drive cable is attached to the lower part of the pile-driver boom and passes over

Card 1/2.

UDC: 621.873.3:629.11:624.155.15

L 22731-66

ACC NR: AP6002902

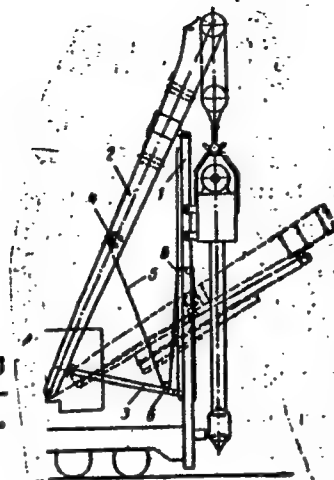


Fig. 1. 1 - pile-driver boom;
2 - crane boom; 3 - brace; 4 -
drive; 5 - cable; 6 - pulleys.

pulleys located at its top and on the cross-brace. The latter can rotate around its pivot connection with the crane boom. Orig. art. has: 1 figure.

SUB CODE: 13/ SUBM DATE: 25Nov64

Card 2/2 ULR

ACC NR: ARG025368 SOURCE CODE: UR/0285/66/000/004/0013/0013

AUTHOR: Shestakov, V. T.

ORG: none

TITLE: Experimental equipment and methodology for studying micronozzles

SOURCE: Ref. zh. Turbostroyeniye, Abs. 4.49.92

REF SOURCE: Tr. Kuybyshevsk. aviats. in-t, vyp. 22, 1965, 63-70

TOPIC TAGS: micronozzle, nozzle

ABSTRACT: An experimental method has been presented for studying micronozzles by determining their basic characteristics and by changes in the characteristics caused by alterations in the nozzle design or in operating conditions. Diagrams and descriptions of experimental equipment and measuring instruments are given in the original article. [Translation] [FM]

SUB CODE: 13/

Card 1/1

SHESTAKOV, V.V., podpolkovnik meditsinskoy sluzhby.

~~SHESTAKOV, V.V.~~
Treating chronic purulent otitis media. Voen.-med. zhur. no.9:
49-50 S '55. (MIRA 9:9)
(EAR--DISEASES)

SHESTAKOV, V.V., podpolkovnik meditsinskoy sluzhby; GREKOV, P.M., mayor
meditsinskoy sluzhby; DAVYDOVICH, S.Ya., kandidat meditsinskoy sluzhby;
TISHCHENKO, A.I., starshiy leytenant meditsinskoy sluzhby

Prevention and treatment of acute catarrh of the upper respiratory
tract. Voen.-med.zhur. no.8:79-81 Ag '57. (MIRA 10:12)
(RESPIRATORY ORGANS--DISEASES)

L 4472-bb EWI(1)/EWI(m)/FCC/I/EWA(h) IJP(c) GW

ACC NR: AP5024652

SOURCE CODE: UR/0048/65/029/009/1751/1753

AUTHOR: Rozental', I.L.; Shestakov, V.V.

ORG: none

TITLE: Some remarks on cosmic ray energy spectra /Report, All-Union Conference on Cosmic Ray Physics held at Apatity 24-31 August 1964/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 29, no. 9, 1965, 1751-1753

TOPIC TAGS: cosmic ray particle, spectral energy distribution, error, mathematic method

ABSTRACT: This paper is concerned with the errors in the experimentally determined power law spectra of cosmic ray particles due to statistical errors in the measurement of the energies of individual particles. The experimental energy spectrum $F'(E')$ is given in terms of the true spectrum $F(E)$ by $F'(E') = \int F(E) dE P(E, E')$, where $P(E, E')$ is the probability of finding the value E' for the energy of a particle whose true energy is E . The experimental spectrum $F'(E')$ corresponding to a true spectrum of the form $F(E) = AE^{-(\gamma+1)}$ is calculated with several different assumptions concerning the functions P , and in some cases formulas are derived for calculating the true spectrum from the experimental spectrum. The cases discussed include that in which P is constant when $(E - E')^2 < a^2$ and vanishes otherwise, and those in which $E - E'$ is Gaus-

Card 1/2

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L 4472-66

ACC NR: AP5024652

sianly distributed with a dispersion that depends in certain different ways on E. According to Landau's hydrodynamic theory of multiple production, the function P for the usual method of determining the energies of nuclear-active particles represents a Gaussian distribution of $\log E - \log E'$ with a dispersion that depends on the multiplicity. It is shown that in this case an experimental value of the spectrum index γ as large as 3.5 may be found if the true value is 1.8. The proper choice of the energy intervals over which to average the data is discussed briefly. When determining the spectral index γ one should employ the method of maximum likelihood and not that of least squares. Orig. art. has: 19 formulas.

SUB CODE: NP/ SUBM DATE: 00/

ORIG REF: 005/ OTH REF: 002

PC
Card 2/2

L 2769-66 ENT(m) IJP(c)

ACCESSION NR: AP5021331

UR/0120/65/000/004/0059/0062

539.1.074.2

34
33
B

AUTHOR: Kirillov-Ugryumov, V. G.; Petrukhin, A. A.; Shestakov, V. V.

TITLE: The study of certain characteristics of the IK-6 ionization chamber

19

SOURCE: Priory i tekhnika eksperimenta, no. 4, 1965, 59-62

TOPIC TAGS: ionization chamber, ion distribution, alpha particle

ABSTRACT: This paper presents the results of investigations of the IK-6 110x54 mm², 3 meter ionization chamber. The investigations cover the potential distribution across the cross section of the chamber, the calculated coefficients of electron collection at various parts of the chamber, and the calculated electron collection times. Using α particles from Pu²³⁹ samples, the authors verified experimentally (at 0.5 atm of pure and commercial argon) the effectiveness of corner operation and the electron collection time (as a function of applied voltages). Pulse oscillograms are shown in Fig. 1 of the Enclosure. "The authors thank V. V. Borog, I. A. Danil'chenko, and V. G. Sinitsyna for the help during individual measurements and N. L. Grigorov for valuable remarks."

Orig. art. has: 4 formulas, 5 figures, and 2 tables.
Card 1/3

L 2769-66

ACCESSION NR: AP5021331

ASSOCIATION: Moskovskiy inzhenerno-fizicheskiy institut (Moscow Engineering-
Physics Institute)

SUBMITTED: 30Nov64

ENCL: 01

SUB CODE: NP

NO REF SOV: 005

OTHER: 004

Card 2/3

L 2769-66

ACCESSION NR: AP5021331

ENCLOSURE: 01

6

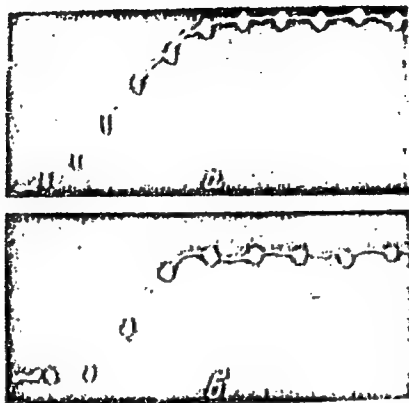


Figure 1. Pulse oscillograms

a - pure argon; b - commercial argon. Marks every 5 μ sec.

PC
Card 3/3

L 06347-01 EMI/UM/ GD
ACC NR: AT6032306

SOURCE CODE: UR/0000/66/000/000/0059/0068

AUTHOR: Borog, V. V.; Kirillov-Ugryumov, V. G.; Petrukhin, A. A.; Rozental', I. L.;
Shestakov, V. V.

ORG: none

TITLE: Ionization calorimeter for the investigation of high energy cosmic muons at large zenith angles 12-1

SOURCE: Moscow. Inzhenerno-fizicheskiy institut. Fizika elementarnykh chastits (Physics of elementary particles). Moscow, Atomizdat, 1966, 59-68

TOPIC TAGS: muon, calorimeter, bremsstrahlung, cosmic ray measurement, angular distribution, ionization chamber, waveguide

ABSTRACT: A study of high energy muons, using the horizontal flux zenith angles $\geq 60^\circ$ of cosmic rays at sea level was made and an ionization calorimeter developed for this purpose is described. Such a study is feasible because the horizontal flux at large zenith angles θ consist almost exclusively of muons and the intensity of muons for energies $>10^{11}$ ev increases with θ . The apparatus uses muon flux to study high energy muon interactions with matter and measures the characteristics of the horizontal muon flux to determine the angular and energy distributions. The ionization calorimeter enables one to study both of these areas by observing the showers produced by the muons due primarily to bremsstrahlung and nuclear interactions. It detects muons

Card 1/2

ACC NR: AP7007079

SOURCE CODE: UR/0048/66/030/010/1666/1668

AUTHOR: Borog, V. V.; Kirillov-Ugryumov, V. G.; Petrukhin, A. A.; Shestakov, V. V.

ORG: none

TITLE: Non-electromagnetic interactions of superhigh-energy muons [Paper presented at the All-Union Conference on Cosmic Radiation Physics, Moscow, 15-20 Nov 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 10, 1966, 1666-1668

TOPIC TAGS: muon, cosmic radiation

SUB CODE: 20

ABSTRACT: The non-electromagnetic interactions of superhigh-energy muons ($E \gtrsim 10^{11}$ ev) were recorded at an installation for the study of cascade showers produced by cosmic radiation muons impinging at large zenith angles (cf. Borog et al, Izvestiya Akademii Nauk SSSR, Seriya Fizicheskaya, 30, 10, 1966, 1966). The only known process which could give rise to the non-electromagnetic cascade showers recorded was that of nuclear interaction of muons. A comparison of the spectra of nuclear and electromagnetic showers made it possible to evaluate the cross-section $\sigma_{\gamma N}$ of the photonuclear process at $E \gtrsim 10$ ev. By using the relation derived by P. & D. Kessler (Compt. Rend. 244, 1896, 1957), which applies to any transmitted energies, it was established that

$$\sigma_{\gamma N} = 0.15 \begin{matrix} +0.20 \\ -0.10 \end{matrix} \cdot 10^{-28} \text{ cm}^2 \text{ per nucleon.}$$

Card 1/1 Orig. art. has: 3 figures and 2 formula: [IPRS: 39, 658]

ACC NR: AP7007080

SOURCE CODE: UR/0048/66/030/010/1669/1673

AUTHOR: Borog, V. V.; Kirillov-Ugryumov, V. G.; Petrukhin, A. A.;
Rozental', I. L.; Shestakov, V. V.

ORG: none

TITLE: Study of the energy spectrum of cosmic-ray muons on the basis of
electron-photon showers /Paper presented at the All-Union Conference on Cosmic
Radiation Physics, Moscow, 15-20 Nov 1965/

SOURCE: AN SSSR. Izvestiya. Seriya fizicheskaya, v. 30, no. 10, 1966,
1669-1673

TOPIC TAGS: calorimeter, cosmic ray, muon

SUB CODE: 20

ABSTRACT: At present, outer space is the only accelerator of particles with
superhigh energies. The energy spectrum of electromagnetic cascades produced by
superhigh-energy muons ($E_\mu \gtrsim 10^{11}$ ev) impinging at angles $\geq 55^\circ$ was studied
at sea level on an ionization calorimeter consisting of six rows of Ar-filled
ionization chambers, 25 in each row, with an iron interlayer between the cham-
bers acting as an absorber. The majority of the cascades recorded were due to
the interaction of muons with the absorber. A small number of showers ($< 1\%$)
was produced by nucleus-reactive particles. The energy spectrum of the muons
was determined on the basis of the recorded showers due to high-energy photons
and electrons formed by interaction of the muons with atoms of the absorber.
Mathematical equations expressing the experimentally determined energy spectrum

The authors thank G. G. Bunatyan for help in carrying out the numerical compu-
tations on the ETsVM. Orig. art. has: 4 figures and 6 formulas. [JPRS: 39,658]

Card 1/1

Shestakov, V. I.

4069. METHOD OF COMPUTING MATERIAL COMPOSITION OF COALS UNDER A MICROSCOPE WITHOUT CALCULATING APPARATUS. Shestakov, V. Ya. (Dokl. Akad. Nauk Tadzh. SSR (Rep. Acad. Sci. Tadzh. S.S.R.), 1954, (6), 9-11; abstr. in Ref. Zh. Khim. (Ref. J. Chem., Moscow), 1954, (1), 309). Computation of the components in a section without a push-button integrator ordinarily takes half a day. The new method employs transparent sections of fine coal not less than 1.5 cm in diameter. An eyepiece-micrometer is used for computation. The section is fixed in the guides of the microscope and is divided into four by three parallel horizontal measuring lines. Before beginning the computation it is necessary to ensure that the measuring line selected in the section is exactly parallel to the horizontal line of the gridded micrometer. 500 to 700 points are counted on the three measuring lines, the number of points depending on the area of the section and the density of the grains of coal in it. The method gives eight determinations a day with an accuracy of 1%.

SHELSTAKOV, V.Ya., inzh. (Voronezh)

Movement of two elastically connected solid bodies supported by
an elastic cone. Issl. po teor. sooruzh. no.13:121-126 '64.
(MIRA 18:2)

11 D

Temperature-hardening of winter wheats and accumulation of carbohydrates in the light stage of development.
 V. I. Shestakov, A. D. Smirnova, Z. N. Popova and V. P. Kazanskii. *Izv. Akad. Nauk SSSR, Biol. Ser.* 1, 41 (1967); (U. S. A. 33, 8182). Hardening of winter wheat seedlings proceeds not only during vernalization but during subsequent growth in light at low temp. Ability to undergo hardening diminishes progressively after exposure to light. Carbohydrate accumulation commences immediately after vernalization. Sugar accumulation during growth in light is not an important factor in the hardening process. B. C. P. A.

ASB SLA METALLURGICAL LITERATURE CLASSIFICATION

1. SHUSTAKOV, V. YE.
2. USSR (600)
4. Wheat
7. Intervarietal hybrids of winter wheat from crossbreeding under free pollination. Sel i sem. 19 no. 12, 1952
9. Monthly List of Russian Accessions, Library of Congress, March 1953, Unclassified.

SHESTAKOV, V.Ye., kandidat tekhnicheskikh nauk; ORLOV, V.A.

Methods for obtaining hybrid rye seeds and a study of their
productivity. *Agrobiologiya* no.2:40-43 Mr-Apr '57. (MLRA 10:5)

1. Petrovskaya gosudarstvennaya selektsionnaya stantsiya, p/o
Danilovka, Penzenskoy oblasti.
(Penza Province—Rye breeding)

PHASE I WORK EXHIBITION 800/3589

Monthly radiological health surveillance (Collection of Radiochemical and Biological Materials) Moscow, 1979. 459 p. Kireva allp inserted. 9,000 copies printed.

Rad. (File page): R. G. Ozerov, G. Ya. Karpulis, A. M. Mavry, P. Ya. Taranenko, Yu. M. Shchukin; Ed. (File page): V. I. Lashov; Tech. Ed.: A. I. Lashov.

FOREWORD: This collection of articles is intended for physicians, radiation and public health doctors, chemists and other specialists working in radioactive dosimetry.

CONTENTS: This work discusses the following subjects: (1) Principles of operating and controlling and dosimetric control in institutions where work is carried out with radioactive substances; (2) Radiochemical and chemical methods for determining the concentration of radioactive substances in samples of air, water, soil and foodstuffs; (3) Physical methods of measuring contamination of the air by radioactive gases and aerosols, and methods for determining the level of contamination of working surfaces, clothes and leather covering; (4) Methods of measuring external exposures of γ - and β -radiation, and methods of internal dosimetric monitoring; (5) Absolute and relative methods of measuring the activity of solid and liquid radioactive substances; (6) Methods of dealing with methods of calculating the dose received from sources of ionizing radiation, units of activity, auxiliary radiations observed during transportation, in the calculation of food, water and soil contamination; (7) Methods of determining the level of radioactive contamination of the environment; (8) Methods of determining the level of radioactive contamination of the environment; (9) Methods of determining the level of radioactive contamination of the environment; (10) Methods of determining the level of radioactive contamination of the environment.

Ch. V. Physical Methods of Determining Contamination of the Environment

Introduction (Yu. M. Shchukin)

1. Determination of the active concentration of naturally active aerosols (G. V. Gorbunov, V. V. Zolotarev, V. I. Kiselev and V. M. Koryukhin) 154
2. Determination of the radioactive dust content of air with the aid of membrane filters (A. M. Lashov) 156
3. Determination of the concentration of active aerosols with the aid of the α -counter (A. M. Lashov) 159
4. Determination of active aerosols with the aid of liquid filters (S. M. Gerasimov and I. A. Zolotarev) 165
5. Radiometric method of determining the concentration of active aerosols (S. M. Gerasimov and I. A. Zolotarev) 166
6. Determination of active aerosols (S. M. Gerasimov and Yu. M. Shchukin) 167
7. Measurement of the concentration of radon in the air (V. I. Kiselev and V. M. Koryukhin) 171
8. Automatic control of the radon content of air by means of an "air wall" chamber (K. M. Pogodov, M. I. Shchukin, and Yu. M. Shchukin) 175
10. Determination of concentration of beta-active gases in the air with the aid of a cylindrical counter placed in a chamber of fixed volume (V. V. Zolotarev) 181

Recommended literature

Ch. VI. Methods of Measuring the Level of Contamination of Surfaces

Introduction (Yu. M. Shchukin)

1. Instruments for measuring the surface contamination level of contamination of surfaces by active substances (Yu. M. Shchukin) 185
2. Calibration of instruments for measuring the contamination of surfaces by active substances (Yu. M. Shchukin) 192
3. Measuring the contamination of fixed surfaces (furniture, equipment and installations) (Yu. M. Shchukin) 196
4. Operating special counting for radioactive contamination (S. M. Gerasimov and M. Shchukin) 206
5. Determining the radioactive contamination of the hands and body (Yu. M. Shchukin) 211
6. Determining the radioactive contamination of surfaces by the smear method (S. M. Gerasimov, Yu. M. Shchukin, and E. Orlinov) 213

Ch. VII. Methods of Measuring External Doses of γ and Neutron Radiation (U. Ya. Karpulis and S. M. Gerasimov)

1. Introduction 219
2. Calibration of dosimeters 221

SHESTAKOV, Yu.G.

Geochemical indicator of the zones of magnetite mineralization.
Sov. geol. 8 no.3:132-134 '65. (MIRA 18:5)

1. Kamskiy filial Vsesoyuznogo nauchno-issledovatel'skogo geologorazvedochnogo neftyanogo instituta.

BOGATSKIY, V.V., otv. red.; GOR'KIY, Yu.I., red.; DOBROVOL'SKIY,
M.N., red.; KOROPETS, I.P., red.; KURTSEYAYTE, Sh.D., red.;
PEL'TEK, Ye.I., red.; FAYNBERG, F.S., red.; KHAZAGAROV,
A.M., red.; SHESTAKOV, Yu.G., red.; LIFSHITS, L., red.

[Geology and geochemistry of the mineral resources of
Krasnoyarsk Territory] Geologiya i geokhimiya poleznykh
iskopaemykh Krasnoyarskogo kraia; sbornik statei. Krasno-
yarsk, Krasnoyarskoe knizhnoe izd-vo, 1964. 197 p.
(MIRA 18:9)

1. Krasnoyarskaya kompleksnaya ekspeditsiya.

IL'IN, K.P., kand.tekhn.nauk; PLADIS, F.A., inzh.; ROSTOVSKAYA, Ye.P., inzh.;
VOVCHENKO, P.I., inzh.; Primalni uchastiye: GORBENKO, L.G., inzh.;
SHESTAKOV, Yu.K., inzh.; LABADIN, S.I., inzh., retsenzent;
MALAKHOV, K.N., inzh., retsenzent; PETROVA, V.L., inzh., red.;
BOEROVA, Ye.N., tekhn.red

[Methods of determining freight weight] Sposoby opredelenia
vesa gruzov. Moskva, Vses.izdatel'skopoligr.ob"edinenie M-va
putei soob., 1961. 117 p. (Moscow. Vsesoiuznyi nauchno-
issledovatel'skii institut zheleznodorozhnogo transporta.
Trudy, no.215) (MIRA 15:1)

(Railroads—Freight)
(Weighing machines)

IL'IN, K.P., kand. tekhn. nauk; KHASILOV, Yu.A., kand. tekhn. nauk;
SHESTAKOV, Yu.K., inzh.

Specialization of gondola cars is an efficient measure.
Zhel. dor. transp. 47 no. 11:22-26 N 165 (MIRA 1981)

ACC NR: AR7002213 (AN) SOURCE CODE: UR/0271/66/000/010/A029/A029

AUTHOR: Bortsov, Yu. A.; Shestakov, Yu. S.; Suvorov, G. V.

TITLE: Experimental determination of the parameters of nonlinear systems in electric drives

SOURCE: Ref. zh. Avtomatika, telemekhanika i vychisl'nyaya tekhnika, Abs. 10A215

REF SOURCE: Sb. Avtomatizir. elektroprivod proizv. mekhanizmov. T. I. M. -L., 1965, 206-208

TOPIC TAGS: nonlinear system, electric drive,

ABSTRACT: A method of determining the parameters of elements in electrical drive systems is discussed. A description is given of a device which was developed on the basis of this method and which permits sufficiently rapid determinations of the parameters necessary for modeling nonlinear systems in electrical drives. The dynamics of nonlinear electromagnetic elements (excitation circuits of electric machines, EMU, MU, amplidynes, magnetic amplifiers, etc.) which are the basic

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UDC: 62-83

ACC NR: AR7002213

elements in drives, is characterized by magnetization curves, the demagnetization coefficient and rated time constants of the excitation circuit (T_E) and short-circuit contour (T_S). T_E may be determined from the increment (decrement) of the magnetic flux from zero to the base value, and does not depend on the shape of the applied voltage or the presence of magnetically-connected circuits, so that often it is not necessary to set up a special circuit for the experiment, and the measurements may be made without disconnecting the element from the overall system. This is the most important feature of the proposed method for determining the rated time constant. The principle of measuring the coefficient of feedback, the electro-mechanical time constant, and T_g is discussed. A block diagram is given of the device and of its basic technical characteristics. The text includes illustrations. There are 2 references. [Translation of abstract] [SP]

SUB CODE: 09/

Card 2/2

MILLER, G.Ya.; VLADYKIN, M.I.; SHESTAKOV, Yu.S.

Replacing running tests of high-capacity trailers by stand tests.
Avt.prom. 28 no.2:48 F '62. (MIRA 15:2)

1. Chelyabinskiy mashinostroitel'nyy zavod avtopritsepov i
Chelyabinskiy politekhnicheskii institut.
(Truck trailers--Testing)

SHESLAROVA, A., mladshiy nauchnyy sotrudnik

Mechanical control measures against the larvae of
Luspeyresilinae. Zashch. rast. ot. vred. i bol. 10
no.8:41 '65. (MIRA 18:11)

1. Donskoy nauchno-issledovatel'skiy institut sel'skogo
khozyaystva.

SHESTAKOVA, A., starshiy nauchnyy sotrudnik

Weather and loose smut of wheat. Zashch. rast. ot vred. i bol.
10 no.3:41 '65. (MIRA 19:1)

1. Bezenchukskaya opytnaya stantsiya, Kuybyshevskaya oblast'.

SHESTAKOVA, A.

NATAL'INA, O. B., PAN'KOVA, O., and SHESTAKOVA, A. "On Apple Rosette (Possibly Virus Disease)," Sad i Ogorod, no. 8, 1951, pp. 36-38. 80 Sal3

So: Sira - Si-90-53, 15 Dec. 1953

ARISTOV, Ye.M.; Prinimali uchastiye: SHESTAKOVA, A.A.; KIRILLOVA, G.N.;
KADYROVA, Ya.M.

Automatic device for opening press molds after the vulcanization
of tire casings. Kauch.i rez. 20 no.7:50-51 J1 '61. (MIRA 14:6)

1. Voronezhskiy shinnyy zavod.
(Tires, Rubber)

69. Direct Oxidation of Methane To Methanol

"Oxidation of Methane Under Pressure," by M. S. Furman and A. D. Shestakova, Khimicheskaya Pererabotka Neftyanykh Uglevodorodov (Chemical Conversion of Petroleum Hydrocarbons), Academy of Sciences USSR, Moscow, 1956, pp 344-351

Oxidation of methane at pressures of 50-500 atmospheres and at the temperature of 375° was studied. Comparison of the oxidation of methane at high pressures with oxidation at atmospheric pressure showed that methanol is the predominant product at high pressures while formaldehyde predominates at low pressures. It was established that increasing the pressure beyond 250 atmospheres does not result in any further increases in the yield of methanol. The effects of the temperature, the time during which the mixture of CH₄ and oxygen or air remains in the reaction zone, and the concentration of oxygen on the process of the oxidation of methane were investigated. Assumptions are made in regard to the nature of the effect which pressure exerts on the process of oxidation. (U)

FURMAN, M.S., doktor khim. nauk; SHESTAKOVA, A.D.

Investigating the mechanism of the oxidation of lower saturated
hydrocarbons under pressure with the use of the carbon isotope of
mass 14. Trudy GIAP no.8:63-68 '57. (MIRA 12:9)
(Hydrocarbons) (Oxidation) (Carbon--Isotopes)

FURMAN, M.S.; SHESTAKOVA, A.D.

Combined oxidation of hydrocarbons under pressure. Gaz. prom.
no.3:40-45 Mr '58. (MIRA 11:3)
(Hydrocarbons) (Oxidation)

5(3)

AUTHORS

Furman, M. E., Shastakova, A. D., SOV/20 124-5-34/62
Irest Yakobovich, I. L. Lyubitsyna, E. A.

TITLE:

Oxidation of n Butane Solved in Acetic Acid by Air Under Pressure (Oksleniye n-butana v rastvore uksusnoy kisloty vozdukhom pod davleniyem)

PERIODICAL:

Doklady Akademii nauk SSSR. 1959, Vol 124, Nr 5 pp 1083-1084 (USSR)

ABSTRACT:

Under relatively high temperatures (350-400°) the oxidation of butane in the gaseous phase results in an entire scale of oxygen containing products (Refs 1-3). It has recently been pointed out (Refs 4-8) that the oxidation of n-butane under pressure in the liquid phase is much more selective and leads under milder conditions to valuable organic products: acetic acid, ethyl acetate, and methyl-ethyl ketone. This oxidation can be effected either below the critical temperature of butane ($T_c = 152^\circ$, Refs 4-5) or above the same, with the aid of solvents (Refs 6-8). The latter method seems to be more promising. The authors have chosen acetic acid as a solvent in which butane is soluble and which under the existing conditions is indifferent to oxidation and forms itself an oxidation product

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Oxidation of n-Butane Solved in Acetic Acid by air
Under Pressure

SOV/20-124 5-14/62

of butane. Cobalt stearate was used as a catalyst. The experiment was carried out through six hours at various velocities of the air stream which served for oxidation. Figure 1 shows the results. They make the advantages of the oxidation above T. apparent. Figure 2 contains statements on the influence of the catalyst on the process carried out at 60 atmospheric excess pressure and 160°. The catalyst increases the yield of useful products and directs the process toward a predominant formation of acetic acid. There are 2 figures and 8 references, 3 of which are Soviet.

ASSOCIATION

Dosudarstvennyy nauchno-issledovatel'skiy i proyektnyy institut khimicheskoy promyshlennosti (State Scientific Research and Design Institute for Nitrogen Industry)

PRESENTED

October 8, 1958 by S. I. Vol'fkovich, Academician

SUBMITTED

September 19, 1958

Card 2/2

S, 061/61/000/001/001/011
B110/2215

Author: Furman, L. S., Shestakova, A. M., Krest-Yakubovich, I. L.

Title: Oxidation of n-butane in liquid phase under pressure

Source: Khimicheskaya promyshlennost', no. 1, 1961, 6-11

Summary: Oxidation of hydrocarbon in liquid phase takes place at lower temperatures (100-200°C) than in gaseous phase (350-400°C). The destruction of important oxidation products is thus excluded and the reaction is more selective. ✓
The main products of oxidation of n-butane in liquid phase are CH_3COOH , $\text{CH}_3\text{CO}_2\text{C}_2\text{H}_5$ and $\text{CH}_3\text{COOC}_2\text{H}_5$, whereas HCHO , CH_3CHO , CH_3OH , $\text{C}_2\text{H}_5\text{OH}$, CH_3COCH_3 , $\text{HOCH}_2\text{CH}_2\text{OH}$, and $\text{CH}_3\text{CHOHCH}_2\text{CH}_3$ are formed in the gaseous phase. To accelerate the reaction, n-butane is dissolved in acetic acid (main reaction product). Oxidation takes place above the critical temperature of n-C₄H₁₀ (152°C). Pressure pipe (4) serves for conducting the oxidizing air into the acetic solution of n-butane contained in the reaction vessel (2) made of glass or

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Oxidation of n-butane in liquid...

07/08/01, 08/08/01, 08/01/011
2110 2115

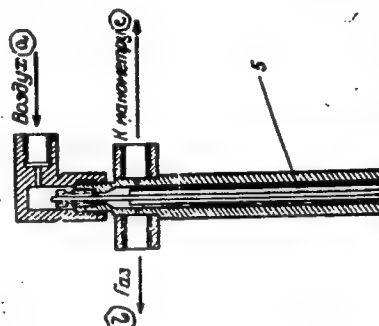
titanium, which had been put into the steel autoclave (1) (Fig. 2). After passing the reflux condenser, the reaction gases still contain 3 - 10% of butane. CO_2 , O_2 , CO , C_4H_{10} , and H_2 were determined in the gaseous reaction products, while CH_3COOH , $\text{CH}_3\text{COOC}_2\text{H}_5$, and H_2O were established in the liquid products. For maximum butane transformation in optimum yields of acetic acid, the following data were obtained by constant addition of 5.40 g of butane dissolved in acetic acid: ratio butane, acetic acid = 0.3, 1 (Fig. 3); duration of experiment: 3 hr, reaction temperature 165°C, air supply 110 - 120 Kl/hr, amount of catalyst: 0.05 g of a solution of 0.016% of cobalt stearate in aqueous acetic acid. Pressure increase from 50 to 80 atm did not affect the composition of the reaction products but accelerated the reaction due to an increase in the O_2 concentration in the reaction zone. Optimum pressure was 60 atm. It was also found that intermediates of the oxidation such as $\text{CH}_3\text{COC}_2\text{H}_5$ and $\text{CH}_3\text{COOC}_2\text{H}_5$ do not inhibit the course of the reaction or reduce the yield of acetic acid. All the other solvents, except acetic acid, reduced the total exchange of butane. Two phases were

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Oxidation of n-butane in liquid...

S/064/61/000/001/001/011
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obtained in the experiments by G. D. Yefremova and R. M. Koroleva conducted in the GIAP (State Institute of the Nitrogen Industry) on the state of the system butane - acetic acid - water, in which concentrations of acetic acid lower than 90% were used. The ratios butane/acetic acid of these two phases differed. An optimum ratio of 0.5 to 1 can only be guaranteed by concentrations of acetic acid exceeding 90% of the reaction liquid. Therefrom it follows that a 100% acetic acid is best suited as solvent. There are 5 figures, 5 tables, and 18 references: 9 Soviet-bloc and 9 non-Soviet-bloc.



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Oxidation of n-butane in liquid...

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Legend to Fig. 2: 1) autoclave,
2) reaction vessel, 3) attachment to
the autoclave, 4) pressure pipe,
5) reflux condenser, 6) container for
thermocouple of the reaction vessel,
7) autoclave housing for thermocouple,
8) housing of thermocouple, a) air,
b) gas, c) to monometer.

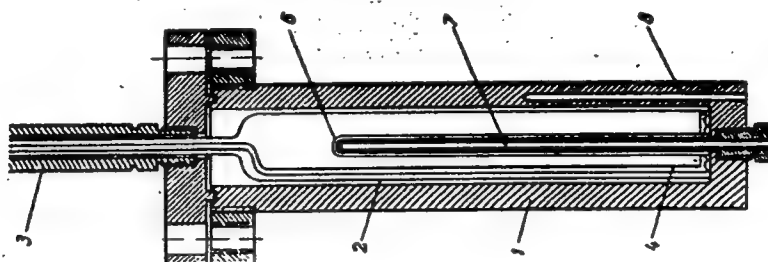


Рис. 2. Реактор.

Card 4/5

YERMOGENA O.A. (Donopetrovsk). Prinsipalni uchastkiye: SHESTAKOVA A.I., inzh.
AVDALIKO V.A., inzh.

Pressure welding of large-section parts. Avtom. svar. 17 no.5:78-79
Mg 64. (MIRA 17:11)

I. Institut elektrosvarok imeni Patona AN UkrSSR (for Shestakova,
Rybalko).

RYABOV, I.V., kand. tekhn. nauk, red.; SHESTAKOVA, A.L., red.

[Protection of chemical plants against fire and explosions]
Okhrana khimicheskikh predpriatii ot pozharov i vzryvov.
Moskva, Nauchno-issl. in-t tekhniko-ekon. issledovani, 1961.
342 p. (MIRA 14:10)
(Chemical industries--Fires and fire protection)

SHESTAKOVA, A.P., starshiy nauchnyy sotrudnik

Artificial infection by the vacuum method. Zashch. rast. ot vred.
i bol. 8 no.9:42 S '63. (MIRA 16:10)

1. Bezenchukskaya selektsionnaya stantsiya.

SOV/124-57-3-3574

Translation from: Referativnyy zhurnal. Mekhanika, 1957, Nr 3, p 137 (USSR)

AUTHOR: Shestakova, A. V.

TITLE: The Influence of the Shape of the Axis of a Fixed Bridge Arch on the Forces Arising From a Live Load (Vliyaniye ochertaniya osi bessharnirnogo mostovogo svoda na usiliya ot vremennoy nagruzki)

PERIODICAL: Tr. Khabarov. in-ta inzh. zh.-d. transp., 1956, Nr 9, pp 112-166

ABSTRACT: The author provides calculations of fixed arches having various shapes with reference to the effect exerted by a live load and presents a comparison of the results obtained.

I. K. Snitko

Card 1/1

SHESTAKOVA, P.I.

On the January teachers' conferences. Est. v shkole no. 6:3-8 '53.
(MIRA 6:10)

(Natural history--Study and teaching)

SHESTAKOVA, F.I.

Tasks in teaching biology in the current school year. Est. v shkole
no.5:3-9 S-0 '54. (MLRA 7:9)

1. Konsul'tant-metodist po biologii Glavnogo upravleniya shkol
Ministerstva prosveshcheniya RSFSR.
(Biology--Study and teaching)

SHESTAKOVA, F.I.

System and contents of a school course in biology. Biol. v shkole
no.5:19-23 S-O '57. (MLRA 10:9)
(Biology--Study and teaching)

SHESTAKOVA, F.I.

Problems and contents of the biology course in eight-year schools.
Biol. v shkole no.4:9-16 Jl-Ag '59. (MIRA 12:11)

1.Konsul'tant-metodist Glavnogo upravleniya shkol Ministerstva
prosveshcheniya RSFSR.
(Biology--Study and teaching)

SHESTAKOVA, E. I.

New biology program for eight-year schools. Biol. v shkole no.3:3-6
My-Je '60. (MIRA 13:7)

1. Konsul'tant-metodist Glavnogo Upravleniya shkol Ministerstva
prosveshcheniya RSFSR.
(Biology--Study and teaching)

SHESTAKOVA, G.A.

Cobalt content in the soils and plants of East Kazakhstan
Province. Zdrav.Kazakh. 22 no.6:51-55 '62. (MIRA 15:11)

1. Iz Vostochno-Kazakhstanskoy oblastnoy sanitarno-epidemiologicheskoy stantsii (glavnyy vrach - Yu.A.Anikin).
(EAST KAZAKHSTAN PROVINCE--PLANTS, EFFECT OF COBALT ON)
(EAST KAZAKHSTAN PROVINCE--SOILS--COBALT CONTENT)

SHESTAKOVA, G. S.

"Evolution of the Sound-Transmitting Apparatus of Reptiles and Analysis of the Factors Determining the Direction of the Evolutionary Processes," Iz. Ak. Nauk SSSR, Ser. Biol., No.4, pp. 57-72, 1950

Inst. Morphology of Animals im. A. N. Severtsov, AS USSR

SHESTAKOVA, G.S.

Morpho-biological analysis as a method of studying the flight
of birds. Trudy Inst.morf.zhiv. no.9:3-13 '53. (MLRA 7:11)
(Flight)

SHESTAKOVA, G.S.

Penetrability of birds' wings (experimental research on the
flight of birds). Trudy Inst. morf. zhiv. no. 9:14-31 '53.
(Wings) (Flight) (MLBA 7:11)

SHESTAKOVA, G.S.

Structure of the wing surface and its role in aerodynamics of
birds. Trudy Inst.morf.zhiv. no.9:32-58 '53. (MLRA 7:11)
(Wings) (Feathers)

SHESTAKOVA, G.S.

Morphological bases of differences in the flight of gulls.
Trudy Inst.morf.shiv. no.9:59-75 '53. (MLRA 7:11)
(Gulls) (Flight)

SABLINA, T.B.; SHESTAKOVA, G.S., doktor biologicheskikh nauk, redaktor;
SHIDROVSKAYA, O.G.; AUZAN, N.P., tekhnicheskiiy redaktor

Hoofed animals of the Byalovezhska Pushcha. Trudy Inst.morf.zhiv.
no.15:3-191 '55. (MLRA 8:11)
(Byalovezhska Pushcha--Ungulata)

SHESTAKOVA, G.S.

Mechanics of bird flight [with English summary in insert]. Zool.zhur.
25 no.7:1043-1050 J1 '56. (MLRA 9:9)

1. Institut morfologii zhivotnykh AN SSSR.
(Flight)

YAKOBI, V.E.; KOKSHAYSKIY, N.V.; BORODULINA, T.L.; SHESTAKOVA,
G.S., doktor biol. nauk, prof., otv. red.; BROVKINA, Ye.T.,
red.izd-va; KHENOKH, F.M., tekhn. red.

[Functional morphology of birds] Funktsional'naya morfolo-
giya ptits. Moskva, Izd-vo "Nauka," 1964. 91 p.
(MIRA 17:4)

ZIV, D.M.; SHESTAKOVA, I.A.

Solubility of some actinium compounds. Part 1: Determination of the solubility of actinium oxalate. Radiokhimiya 7 no.2: 166-175 '65.

Solubility of some actinium compounds. Part 2: Determination of solubility and evaluation of the relative basicity of actinium hydroxide. Ibid.:175-187 (MIRA 18:6)

S/081/63/000/004/017/051
B166/B186

AUTHORS: (17) Kalabina, A. V., Myasnikova, L. S., Kolmakova, E. F.,
Shestakova, I. R., Pavlova, M. P., (18) Kalabina, A. V.,
Prilezhayeva, Ye. N., Yakovleva, Z. I.

TITLE: Studies in the field of synthesis and conversions of vinylaryl
esters. No. 17. Synthesis and certain properties of α,β -di-
bromomethylaryl esters. No. 18. The addition of mercaptans to
vinyl esters of the aromatic series

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 4, 1963, 238, abstract
4Zh122 (Izv. Fiz.-khim. n.-i. in-ta pri Irkutskom un-te, v. 5,
no. 1, 1961, 193 - 206, 225 - 237)

TEXT: (17) Bromination of the vinyl esters of phenol (I), o-cresol (II),
n-tert-butylphenol and thymol (III) in CCl_4 gave the respective α,β -dibrom-
ethyl esters (IV - VII), which have lachrymatory properties; without the
solvent partial polymerization takes place. IV - VII probably exist in the
form of two tautomeric forms $\text{CH}_2\text{BrCHBrOAr} \rightleftharpoons [\text{CHBr-CHO(H)Ar}]^+\text{Br}^-$,
as ionic Br is easily back-titrated by aqueous solutions of NaOH and AgNO_3 ,
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B166/B186

Studies in the field of...

whilst IV - VII themselves are smoothly converted into β -bromvinyl esters (BVE) when vacuum distilled, yield 80 - 85%. Hydrolysis of IV - VII proceeds in two distinct stages: first of all under the action of H_2O cold there is dissociation of the weak oxonium complex, and the BVE which forms only splits with long boiling in an acid medium. Into a solution of 0.14 moles I in 40 ml CCl_4 at $-5^\circ C$ ($3 - 8^\circ C$ inside the flask) were stirred, over a period of 1.5 - 2 hrs, 0.15 moles dry Br_2 in 20 ml CCl_4 , and IV, $C_8H_8OBr_2$, was distilled off, yield 97.2%, b.p. $129 - 130^\circ C/12$ mm Hg, n_D^{20} 1.5849, d_4^{20} 1.7418, fumes in air. 3 g IV and 50 ml water were shaken in a closed bottle at $45 - 50^\circ C$ for 5 hrs, this was extracted with ether, and 1.19 g phenol BVE (VIII) was separated by distillation, b.p. $100 - 102^\circ C/10$ mm Hg, n_D^{20} 1.5750, as well as 1.403 g IV. 1 g VIII and 25 ml 5% H_2SO_4 were heated, stirring at $\sim 100^\circ C$ for 6 - 7 hrs; this was neutralized with alkali and extracted with ether; after evaporating, $BrCH_2CHO$ was separated from the residue in the form of a semicarbazone; the alkaline layer was treated with 10% H_2SO_4 , C_6H_5OH was extracted with ether. V - VII were synthesized under similar conditions

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Studies in the field of...

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(below are given: the substance, yield %, b.p. in °C/mm Hg, n_D^{20} , d_4^{20}):

V, 97.6, 133 - 134/14, 1.5718, 1.5662, (BVE, b.p. 145 - 148°C/35 mm Hg, n_D^{20} 1.5662); VI, 96.1, 126 - 127.3, 1.5450, 1.4909; VII, 97.5, 149 - 150.4, 1.5548, 1.4595.

(18) The addition of ethyl- and butylmercaptans to I - III was achieved by ionic and radical mechanisms, leading to $CH_3CH(SR)OAr$ (IX) and $RSCH_2CH_2OAr$

(X) respectively. Substitutes of the first kind in the benzene ring considerably simplify radical addition. The thioacetals produced are easily hydrolyzed with dilute H_2SO_4 and split quantitatively when X is treated with $HgCl_2$, which proves their structure to be that of β adducts; under these conditions IX is highly stable. 0.1 mole I, 0.1 mole C_2H_5SH and 0.02 g azodiisobutyrodinitrile were heated in a sealed ampoule at 90 - 100°C for 24 hrs, and X ($R = C_2H_5$, $Ar = C_6H_5$), $C_{10}H_{14}OS$, was distilled, yield 85.02%, b.p. 123.5°C/3 mm Hg, n_D^{20} 1.5433, d_4^{20} 1.0543. The other X were produced under similar conditions (below are given: R, Ar, the gross formula, yield%,

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B166/B186

b.p. in °C/mm Hg, n_D^{20} , d_4^{20}): C_4H_9 , C_6H_5 , $C_{12}H_{18}OS$, 97.20, 141.0 - 142.0/2, 1.5313, 1.0118; C_2H_5 , $o-CH_3C_6H_4$ (Xa), $C_{11}H_{16}OS$, 97.19, 139.0/7, 1.5394, 1.0352; C_2H_5 , 3- CH_3 -5-iso- $C_3H_7C_6H_3$, $C_{12}H_{22}OS$, 98.61, 166.0 - 167.0/12, 1.5270, 1.0025. A weak stream of dry SO_2 was bubbled for 1 - 2 min into a cooled ampoule containing 0.1 mole I and 0.1 mole C_2H_5SH ; this was allowed to stand for 3 - 4 hrs and then neutralized with dry H_2CO_3 , giving IX ($R = C_2H_5$, $Ar = C_6H_5$) (IXa), $C_{10}H_{14}OS$, yield 68.5%, b.p. 62 - 63.0°C/3 mm Hg, n_D^{20} 1.5365, d_4^{20} 1.0436. A mixture of 0.2487 g IXa and an excess of 20% solution of $HgCl_2$ in alcohol was allowed to stand for 2 - 3 hrs, methyl orange was added and 97.52% HCl was found by titration with 0.1 N $NaOH$. A stream of SO_2 was bubbled for 0.5 - 1 min into a mixture of 0.1 mole II and 0.15 mole C_2H_5SH , after 20 - 25 min IX was separated by distillation ($R=C_2H_5$, $Ar = o-CH_3C_6H_4$), $C_{11}H_{16}OS$, yield 60.0%, b.p. 74 - 75°C/12 mm Hg, n_D^{20} 1.5250, d_4^{20} 1.0084, as well as Xa (in view of traces of O_2), yield 3.1 g. For the previous communication see RZhKhim, 1961, 5Zh101. [Abstracter's note: Complete translation.]
Card 4/4

The absorption (chemical combination) of acids and alkalis by proteins. I. S. A. Pavlov and I. S. Shestakova. *Fund. Med. Eksp. Tekhn. Inst. Legol. Prom. i M. A. Kaganova* 1941, No. 2, 123-34. The absorption of acids and bases by protein after treatment with a base or an acid, resp., was studied to elucidate what occurs in a tanning process as a result of liming followed by deliming and pickling. The materials studied were dialyzed egg white and gelatin. The base and acid employed were of 1 N and 0.5 N KOH and HCl. The absorbed acid or of 1 N was detd. by electrometric titration. The exp't. results are tabulated and presented graphically. After treatment with KOH, the absorption of acid by the proteins began at a point on the alk. side of the isoelectric point. Analogously, the absorption of base after treatment of the protein with HCl began at a point on the acid side of the isoelec. point. The max. absorption of acid by proteins previously base-treated occurs at a higher pH than when the proteins are treated with an acid neutralization of the base and acid absorption by the fixed alkyl of the protein occur simultaneously. Similarly, when an acid-treated protein is treated with a base neutralization of the acid and absorption of the base by the acids fixed in the protein take place concurrently. II. *Ibid.* 123-42. In this series of exp'ts. the material studied was the derm. of fresh cowhide. The reagents were KOH, HCl, and Ca-Cl₂. The results were analogous to those obtained with the treated proteins described above. M. Hosh

SHRESTHAKOVA, IS'

Neutral salts and the boiling temperature of collagen.
S. A. Pavlov and I. S. Shrestakova. *Lekhimiya* Prom. 1,
No. 3, 334 (1941). (*Chem. Zvesti.* 1943, 17, 401)
The boiling temp. of collagen is lowered by NaNO_3 , CaCl_2 ,
 $\text{Ca}(\text{NO}_3)_2$, and MgCl_2 , raised by KNO_3 , NaCl , KCl ,
 NaNO_2 , and MgSO_4 and unchanged by KNO_3 in concns.
above 0.5 M. No relation to the lyotropic series could be
established. M. G. Moore

ASME-SEA METALLURGICAL LITERATURE CLASSIFICATION

SHYSTAKOVA, I. S.

CA

Chemical reactions which characterize the quality of the raw materials for leather and sheepskin S. A. Pavlov and I. S. Shystakova. *Legkaya Prom.* 7, No. 2, 21-5 (1947); *Chem. Zentr.* 1947, I, 10531-4. The increases in tyrosine, tryptophan, cystine, lactic acid, and aldehyde content were detd. after 4 to 20 days following slaughter. No essential changes could be detected in the hides during the first few days. M. G. Moore

SHESTAKOVA. I. S.

23388 Deystivye tripsina, pepsina, kontsentrata i orizona na kollagen
i gol'ye. Legkaya prom-st', 1949, No. 7, c. 23-24.
Bibliogr: 1 Nazv.

SO: LETOPIS NO. 31, 1949.

38115. SHESTAKOVA, I. S.

V zashchity prioriteta sovetskikh issledovateley. (O primenении pokazatelya vyplavlyayemosti zhelatiny pri izuchenii protsessa myagcheniya. Kozhevenno-obuvnaya prom-st'). Legkaya prom-st', 1949, No 11, s. 22. - Bibliogr: 9 nazv

SHESTAKOVA, I.S.

"Factors Influencing the Character of Changes of Basic Albumins of Hides in the Fermentation Processes of the Leather Industry (Softening)." Sub 29 May 51, Moscow Technological Inst of Light Industry imeni L. M. Kaganovich.

Dissertations presented for science and engineering degrees in Moscow during 1951.

SO: Sum. No. 480, 9 May 55.

SHRESTAKOVA, I.S.

Cleavage of collagen. Legkaya Prom. 12, No.2, 30-1 '52.
(CA 47 no.19:10260 '53)

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